REMARKS/DISCUSSION OF ISSUES

Claims 1-8 are pending in the application. Claims 1 and 4-6 are rejected. Claims 2 and 3 are objected to. Claims 7 and 8 are new.

Claims 1 and 4

Claims 1 and 4 are rejected under 35 USC 102(b) as being anticipated by newly applied Wesselink et al. (U.S. patent 3,959,682)(herein 'Wesselink').

Wesselink teaches an electric lamp with a current lead-in which is sealed into a portion of the lamp envelope, the current lead-in comprising a moly foil (14) and a tungsten lead (16) which is secured to the foil (14) by a welded joint (20) of an iron alloy containing at least 50% iron and one or more of the elements scandium, titanium, vanadium, chromium, manganese, cobalt, nickel and copper.

As shown in Figs. 1 and 2 of Wesselink, the welding foil (20) is confined to the space between adjacent, facing portions of supply lead (6, 16) and moly foil (4, 14) inside the lamp envelope (1). Another weld, a spot weld (22), occurs between the adjacent, facing portions of the moly foil (14) and the moly supply lead (21), which extends beyond the pinch (12) to the outside atmosphere. In addition, as seen in Fig. 2, a portion of the moly foil (14) is also exposed to the outside atmosphere.

Wesselink makes no attempt to extend the welding foil (20) or the spot weld (22) to portions of the moly foil (14) or the supply leads (16, 21), particularly those portions of moly foil (14) and supply lead (21) which are exposed to the outside atmosphere.

In contrast, Applicant's claim 1 calls for the conductors to be partly embedded in the seal and partly provided with

means for protection against oxidation. In order to more particularly define this feature of the invention, claim 1 is currently amended to call for at least those portions of the conductors which are in contact with the atmosphere outside the lamp to be provided with means for protection against oxidation. Support for this language may be found, e.g., at page 2, lines 5-7 of Applicant's specification.

Since Wesselink fails to teach extending the welding foil (20) or the spot weld (22) to any portion of the moly foil (14) or the supply lead (21) which are in contact with the atmosphere outside the lamp, Wesselink fails to anticipate claims 1 and 4, and the rejection should be withdrawn.

Claims 1, 5 and 6

Claims 1, 5 and 6 are rejected under 35 USC 103(a) as being unpatentable over previously applied Meijer in view of previously applied Leroy.

As pointed out above in connection with the rejection of claims 1 and 4, claim 1 is currently amended to specify that at least those portions of the conductors which are in contact with the atmosphere outside the lamp are provided with means for protection against oxidation.

Meijer's molybdenum conductor (31), intermediate layer (32) of molybdenum-chromium alloy and outer layer (33) of chromium and/or chromium oxide for oxidation protection of the conductor (31), are entirely embedded in the seal, as shown in Fig. 1. Meijer teaches nothing with regard to oxidation protection of the current supply wire (4), which extends beyond the pinch (2) to the outside atmosphere.

Leroy is not concerned with protection from atmospheric oxidation of current conductors for lamps, but rather with oxidation protection of mild steel in an aqueous medium. Thus,

the skilled artisan would not be led by the teachings of Leroy to extend Leroy's coating to the current supply wire (4) of Meijer.

Accordingly, claims 1, 5 and 6 are patentable over the combination of Meijer in view of Leroy, and the rejection should be withdrawn.

In response to Applicant's previous argument that Leroy is not in the same field of endeavor as Meijer because Leroy is concerned with corrosion resistance of steel in an aqueous medium, the Examiner has responded that Leroy is in the same field of endeavor because Leroy teaches oxidation-resistant coatings for oxidation-susceptible transition metals.

However, Leroy's disclosure is clearly limited to the treatment of steel. There is no teaching or suggestion that the invention could be applied to any transition metal or transition metal-containing alloy other than steel. Thus, the skilled artisan would not be led to extend Leroy's teachings to any other transition metal.

Moreover, the list of transition metals is large, and encompasses metals having diverse physical and chemical properties. In view of the notorious unpredictability of chemical substances, the skilled artisan would not be led to apply teachings regarding one transition metal to another transition metal, especially when those metals are as far apart on the periodic table, and as dissimilar to each other as are iron and molybdenum.

The Examiner relies on Meijer's teaching that it is known to protect wire-shaped conductors sealed into glass against oxidation by a layer of chromium, nickel, cobalt, iron, thorium, zirconium, platinum, silicon, etc. However, there is no teaching or suggestion to combine one or more of these

metals for form an alloy. Furthermore, as already pointed out, Meijer teaches nothing regarding protection of those portions of the current conductors which are not sealed into the glass and are exposed to the atmosphere.

The Examiner further relies upon Leroy's teaching of forming an oxidation-resistant coating for steel from Cr, Ni, Co, Mo, or an alloy of two or more of these metals with iron or with other elements, and that Cr-Ni and Cr-Fe are preferred oxidation-resistant coatings.

However, Applicant claims a specific group of chromium-manganese, chromium-cobalt, chromium-iron, and chromium-boron alloys. Leroy's disclosure of a list of elements, together with the statement that they may be combined in unspecified combinations, except for the two examples of Cr-Ni and Cr-Fe, would not suggest to the skilled artisan to choose the specific group of four alloys claimed by Applicant, particularly when only two of these claimed alloys are disclosed by Leroy, and one of these claimed alloys contains B, which is not disclosed by Leroy.

Thus, even if the skilled artisan arbitrarily sought to apply Leroy's teachings to the protection of molybdenum in a lamp environment, Leroy lacks any guidance which would lead to the specific group of alloys claimed by Applicant.

Regarding claim 5, the Examiner argues that Meijer discloses a layer thickness of from 1-6 μm. However, Meijer discloses that his intermediate layer has a thickness of from 1-8 μm, and his outer layer has a thickness of from 0.5-4 μm.

Moreover, these layers have different compositions, and therefore the considerations for their optimum thicknesses are different from those of Applicant's claimed compositions.

For all of the above reasons, claims 1 and 5 are patentable over the combined teachings of Meijer and Leroy, and the rejection is in error and should be withdrawn.

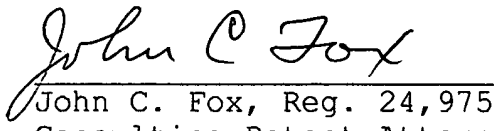
Claims 2 and 3

Claims 2 and 3 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form.

While Applicant believes that claims 2 and 3 are patentable in their present form, nevertheless, new claims 7 and 8 are presented, which recast claims 2 and 3 in allowable form, i.e., a form independent of claim 1.

In conclusion, Applicant respectfully requests that the Examiner withdraw the rejections and objections of record, allow all the pending claims, and find the application to be in condition for allowance.

Respectfully submitted,



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